

Notice of Allowability

Application No.

09/615,025

Examiner

Yogesh C Garg

Applicant(s)

KLEIN ET AL

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3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment received on 6/22/2004 & Telephone Interview on 7/15/2004.
2. ☒ The allowed claim(s) is/are 1-9 and 11-64.
3. ☒ The drawings filed on 13 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

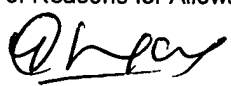
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37.CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Yogesh C Garg
Primary Examiner
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DETAILED ACTION

Response to Amendment

1. The amendment received on June 22, 2004 is acknowledged and entered. Claims 1, 3, 4, 6-9, 16-20, 24 and 25 are amended. New claims 51-64 are added. Claims 1-9 and 11-64 are currently pending for examination.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Joseph G. Swan on 7/15/2004.

The application has been amended as follows:

In the claims, claims 24 and 25 have been rewritten as

" 24. (Currently Amended) An apparatus for classifying assets into business sectors, said apparatus comprising:

(a) means for calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable;

(b) means for repeating the calculating performed by means (a) for each of

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plural different assets; [[and]]

(c) means for grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables;

(d) means for assessing at least one of: (I) how statistics for at least one of the groups formed in step (c) vary over time; and (II) how one asset in a group formed in step (c) compares to other assets in the same group; and

(e) means for at least one of purchasing, selling or recommending an asset based on the assessment made in step (d).

25. (Currently Amended) A computer-readable medium storing computer-executable process steps for classifying assets into business sectors, said process steps comprising steps to:

(a) calculate, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable;

(b) repeat step (a) for each of plural different assets; [[and]]

(c) group said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables;

(d) assess at least one of: (I) how statistics for at least one of the groups formed in step (c) vary over time; and (II) how one asset in a group formed in step (c) compares to other assets in the same group; and

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(e) at least one of purchase, sell or recommend an asset based on the assessment made in step (d). "

Allowable Subject Matter

3. By virtue of the above Examiner's amendment independent claims 1, 24 and 25 are allowed. The dependent claims 2-9, 11-23, and 26-64 are also allowed for the same reasons as for the independent claims 1 and 25.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

Claims 1, 24 & 25

The prior art of record neither anticipates nor fairly and reasonably teaches a method, an apparatus and a computer –readable medium storing computer-executable process steps for classifying assets into business groups comprising steps, *inter alia*, the steps of: (a) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables (see claims 1, 24, & 38).

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Applicant's remarks in the Amendment received on 06/22/2004 are compelling and commensurate with both the original disclosure and the claims as amended. Particularly, see Applicant's remarks (at page 17 of the said amendment):

" In this regard, each of pending independent claims 1, 24 and 25 has been amended above to more clearly recite the feature that the assets are grouped into different sectors based on similarities of the measures of their values' tendency to change across plural exogenous variables. What this first requires is that, for each of plural assets, there is calculated a measure of the tendency of the value of the asset to change as a result of a change in a data value for each of plural exogenous variables. ",

" Nothing in the applied art even remotely suggests this feature of the invention. At most, the cited prior art only discloses calculation of the relative volatility of individual stocks as compared with the volatility of a single index, i.e., the market as a whole. This, of course, is the definition of beta. Accordingly, the applied art could not possibly have disclosed or suggested grouping plural different assets (e.g., stocks in the above example) into plural different sectors based on similarities of such measures across plural exogenous variables. In the above example of the present invention, the plural different stocks typically would be grouped based on how close they are to each other ".

Applicant further remarks (on page 18 of the said amendment):

" Given that the applied art lacks these features of the invention, independent claims 1, 24 and 25 could not have been obvious in view of it. "

The Examiner notes that the specification beginning at page 2, lines 3-19, page 4, line 24-line 2, page 26, line 29-page 28, line 5 and the amended claims 1, 24 and 25 are consistent with the examiner's remarks as noted above in emphasizing that the criticality and novelty of his invention lie in the fact to calculate for each of plural different assets a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable for each of plural exogenous variables and grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

5. Discussion of most relevant prior art:

The following references have been identified as most relevant prior art to the claimed invention(s).

(i) The most closely applicable prior art of record is referred to the previous action mailed on 3/12/2004 as Bekaert in view of Rebane in view of Barrons and further in view of Official Notice. Bekaert in view of Rebane in view of Barrons and further in view of Official Notice discloses grouping assets into sectors such as "small cap", "mid cap" and "large cap, geographical locations and Beta values, wherein the Beta value is the measure of the volatility of the stock of a company with reference to a market index. However, Bekaert in view of Rebane in view of Barrons and further in view of Official Notice fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

(ii) The newly cited reference US Publication Number 2002/0059126 A1 to Ricciardi discloses rules using measures of published macroeconomic data for generating buy and sell signals for individual securities (see at least paragraph 0014, page 1) but fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for

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each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

(iii) The reference Hendricks, Darryl; " Evaluation of Value-at-Risk Models Using Historical Data ", FRBNY Economic Policy Review /April 1996, cited in the previous office action, paper number 3discloses the performance of various Value-at-risk models based upon historical data and these risk models measure the risk that the market value of the portfolio will decline as a result of changes of exogenous factors, such as interest rates, foreign exchange rates, commodity prices, etc. (see at least page 39). However, Hendricks fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

(iv) The newly cited reference US Patent 5,812,988 to Sandretto discloses providing a method and apparatus to estimate an asset's risk and NPV using certain economic conditions such as interest rates to create a portfolio but fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a

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change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

(iv) The newly cited reference WO 92/15064 to Prudential Insurance discloses providing a method and apparatus to assess exposure of financial instruments to interest rate changes by calculating percent change in the price of financial instrument resulting from change in the volatility of interest rates (see at least abstract and page 6. However, Prudential Insurance but fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

(v) The newly cited reference Capobianco, Enrico; " Statistical Analysis of Financial Volatility by Wavelet Shrinkage"; Institute of Mathematical Modeling, Technical University of Denmark Bldg 321, DK-2800 Lyngby, Denmark, Received October 23, 1998, Revised June 11, 1999; Accepted June 21, 1999; extracted on Internet from Proquest database on 7/21/2004 discloses use of wavelets with GARCH models to reduce the measurement error for improving the financial volatility prediction power. However, Capobianco fails to anticipate or render obvious the application's above-mentioned underlined unique features(s) calculating, for each of plural exogenous variables, a measure of a tendency for a value of an asset to change as a

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result of a change in a data value for said each exogenous variable; (b) repeating the calculating steps for each of plural different assets (c) grouping said plural different assets into plural different sectors based on similarities of said measures of tendency to change across said plural exogenous variables.

Conclusion

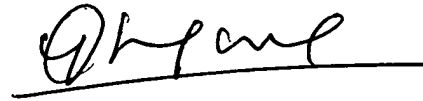
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh C Garg whose telephone number is 703-306-0252. The examiner can normally be reached on M-F(8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent A Millin can be reached on 703-308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Yogesh C Garg', written over a horizontal line.

Yogesh C Garg
Primary Examiner
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YCG
July 21, 2004